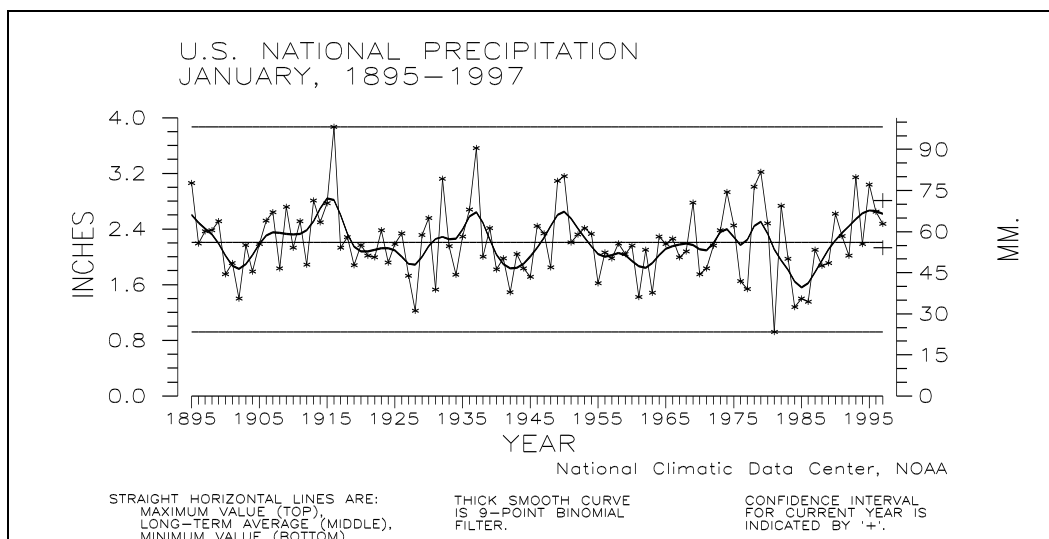
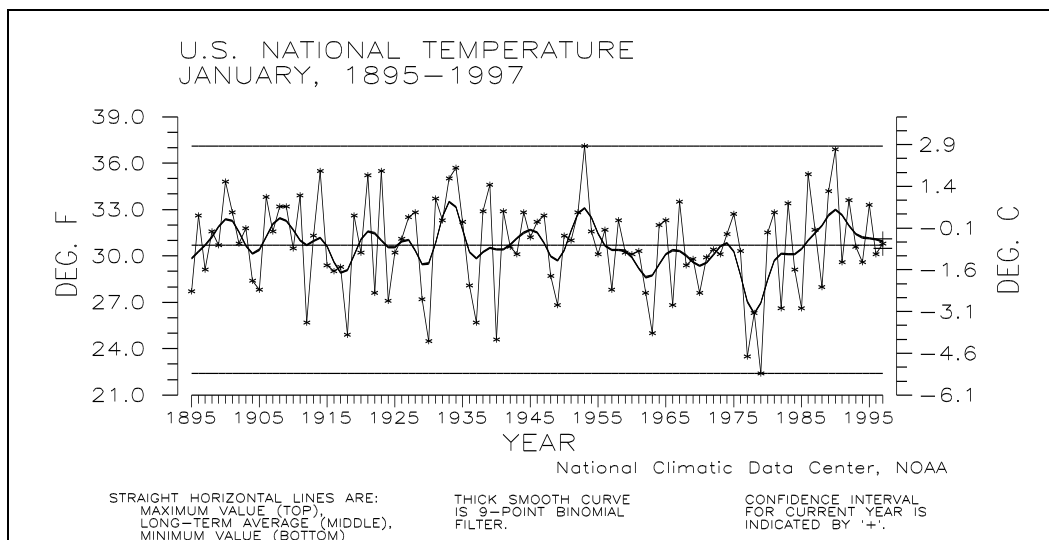


CLIMATE VARIATIONS BULLETIN



This CLIMATE VARIATIONS BULLETIN (CVB) is a preliminary report that puts current monthly climate anomalies into historical perspective using climate databases archived at the National Climatic Data Center (NCDC). It is issued on a monthly basis. Supplemental sections are included which address seasonal and annual perspectives, when appropriate.

Current data are based on preliminary reports from River Forecast Center stations and First and Second Order airport stations obtained from the National Weather Service (NWS) Climate Prediction Center (formerly, Climate Analysis Center), and preliminary tornado statistics obtained from the NWS National Severe Storms Forecast Center. **THE CURRENT DATA SHOULD BE USED WITH CAUTION.** These preliminary data are useful for estimating how current anomalies compare to the historical record, however the actual values and rankings for the current year will change as the final data arrive at NCDC and are processed.

The following NCDC datasets are used for the historical data: the climate division drought database (TD-9640), the hurricane datasets (TD-9636 and TD-9697), the tornado dataset (STORM DATA), and the monthly station dataset (LCD supplemental files). It should be noted that the climate division drought database consists of monthly data for 344 climate divisions in the contiguous United States. These divisional values are calculated from the 6000+ station Cooperative Observer network.

If you have access to the Internet, copies of the CVB are available via both the NCDC's World Wide Web (WWW) server and the NCDC's anonymous FTP server.

NCDC's WWW server

URL for the CVB: <http://www.ncdc.noaa.gov/publications/cvb/cvb.html>

NCDC's anonymous FTP server

Machine: <ftp.ncdc.noaa.gov>

Directory: [/pub/data/cvb](ftp://ftp.ncdc.noaa.gov/pub/data/cvb)

If you are a climate researcher and would like to order copies of the historical datasets used to make graphs of the type in this report, call 704-271-4994 or fax a letter to 704-271-4876 or mail a letter to the address given below, ATTN: Research User Services.

All other questions or requests for data should be made by calling 704-271-4800 or sending a fax to 704-271-4876 or by writing to:

National Climatic Data Center, NOAA
Federal Building
151 Patton Avenue, Room 120
Asheville, NC 28801-5001

If you use any of the information from this CVB, please identify "National Climatic Data Center, NOAA" as the source.

UNITED STATES JANUARY CLIMATE IN HISTORICAL PERSPECTIVE

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Global Climate Lab
Federal Building
Asheville, NC 28801 USA

- Table 1. Regional and National Precipitation and Temperature Ranks for January 1997
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Table 1. Precipitation and Temperature Ranks, Based
On the Period 1895-1997. 1 = Driest/Coldest,
103 = Wettest/Warmest for January 1997,
102 = Wettest/Warmest for Dec 1996-Jan 1997,
102 = Wettest/Warmest for Aug 1996-Jan 1997,
102 = Wettest/Warmest for Feb 1996-Jan 1997.

Region	Jan 1997	Dec 1996- Jan 1997	Aug 1996- Jan 1997	Feb 1996- Jan 1997
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Precipitation:				
Northeast	30	82	93	100
East North Central	87	75	62	62
Central	36	17	46	77
Southeast	67	45	77	72
West North Central	100	102	102	88
South	31	16	84	41
Southwest	96	86	84	69
Northwest	77	101	102	102
West	82	98	100	99
National	77	88	100	95
Temperature:				
Northeast	57	88	66	48
East North Central	46	43	24	8
Central	34	51	16	11
Southeast	63	69	37	20
West North Central	43	28	12	16
South	42	66	25	45
Southwest	70	85	80	100
Northwest	69	73	64	67
West	84	92	92	101
National	51	68	34	51

Table 2. Extremes, 1961-90 Normals, And 1997 Values For January. It Should Be Noted That The 1997 Values Will Change When The Final Data Are Processed.

Region	Precipitation (Inches)				Normal Pcprn	1997 Pcprn
	Driest Value	Year	Wettest Value	Year		
Northeast	.87	1981	7.22	1979	2.84	2.36
East North Central	.32	1961	2.47	1916	1.11	1.58
Central	.72	1981	9.61	1937	2.52	2.28
Southeast	.92	1927	7.73	1936	4.13	4.36
West North Central	.16	1961	1.25	1949	.61	1.19
South	.53	1914	5.34	1932	2.09	1.76
Southwest	.20	1924	3.00	1916	.82	1.82
Northwest	.43	1985	7.81	1953	3.80	4.72
West	.28	1984	10.67	1916	2.58	4.27
National	.92	1981	3.87	1916	2.07	2.47*

* Preliminary Value, Confidence
Interval + or - .34 Inches

Region	Temperature (Degrees F)				Normal Temp	1997 Temp
	Coldest Value	Year	Warmest Value	Year		
Northeast	12.3	1918	33.8	1932	21.1	23.0
East North Central	-1.3	1912	25.4	1990	13.0	13.1
Central	15.1	1977	40.0	1933	28.2	28.2
Southeast	35.0	1977	57.7	1950	44.1	46.7
West North Central	.1	1937	26.6	1986	16.5	15.0
South	31.1	1940	50.7	1923	40.7	41.4
Southwest	20.8	1937	38.2	1986	31.2	32.9
Northwest	13.4	1949	37.4	1953	28.5	30.3
West	24.4	1937	45.5	1986	38.4	40.8
National	22.4	1979	37.1	1953	29.9	30.8*

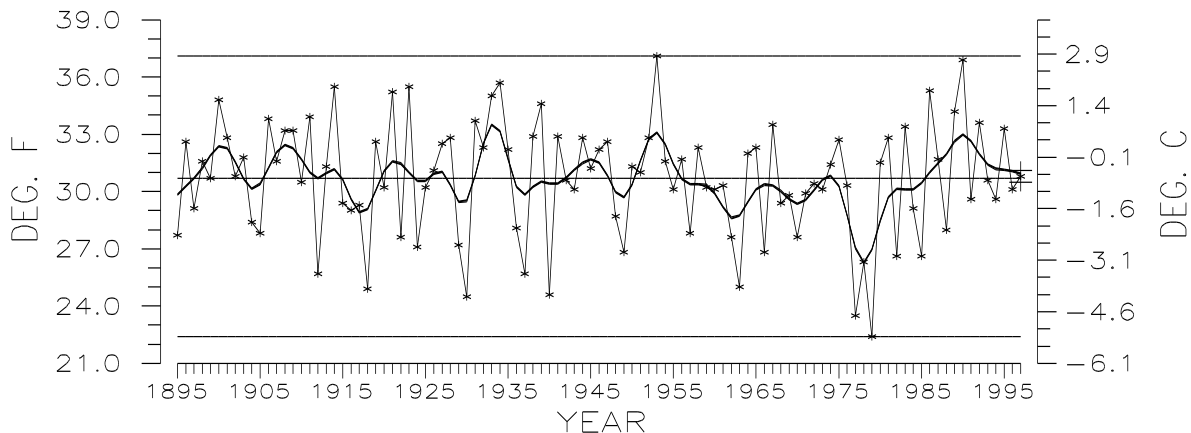
* Preliminary Value, Confidence
Interval + or - .3 Deg. F.

Table 3.

Statistics for Selected River Basins: Precipitation Ranking for Oct-Jan 1996-97, Where Rank of 1 = Driest, 102 = Wettest, Based on the Period 1895 to 1997, Areal Percent of the Basin Experiencing Severe or Extreme Long-Term (Palmer) Drought, and Areal Percent Of the Basin Experiencing Severe or Extreme Long-Term (Palmer) Wet Conditions, as of January 1997. River Basin Regions as Defined by the U.S. Water Resources Council.

River Basin -----	Precipitation Rank -----	% Area Dry -----	% Area Wet -----
Missouri Basin	100	.0%	66.5%
Pacific Northwest Basin	102	.0%	84.9%
California River Basin	98	.0%	62.4%
Great Basin	102	.0%	51.3%
Upper Colorado Basin	102	.0%	68.4%
Lower Colorado Basin	53	28.3%	.0%
Rio Grande Basin	47	.0%	3.9%
Arkansas-White-Red Basin	38	.0%	.0%
Texas Gulf Coast Basin	39	.0%	.0%
Souris-Red-Rainy Basin	97	.0%	57.1%
Upper Mississippi Basin	66	.0%	24.6%
Lower Mississippi Basin	61	.0%	.0%
Great Lakes Basin	71	.0%	41.1%
Ohio River Basin	26	.0%	15.5%
Tennessee River Basin	57	.0%	.0%
New England Basin	86	.0%	42.5%
Mid-Atlantic Basin	82	.0%	69.3%
South Atlantic-Gulf Basin	61	.0%	.0%

U.S. NATIONAL TEMPERATURE JANUARY, 1895-1997



National Climatic Data Center, NOAA

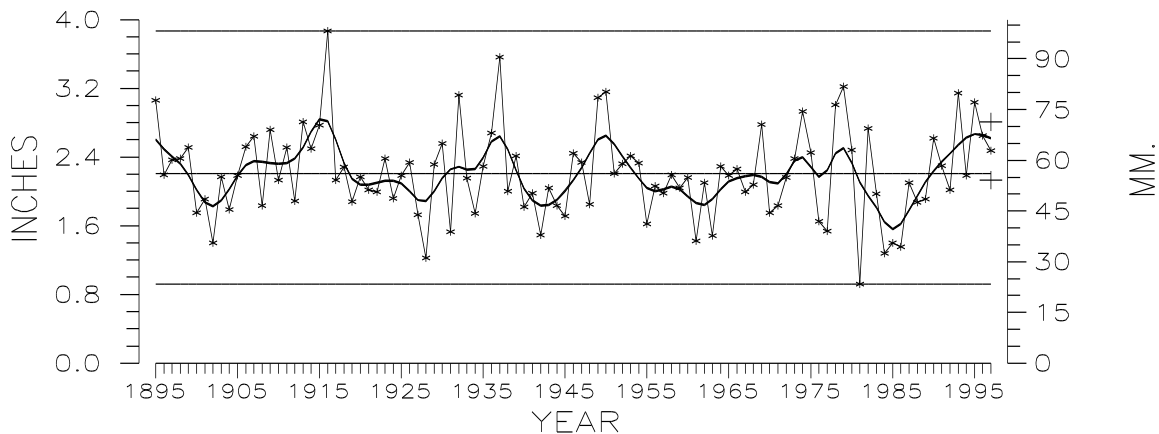
STRAIGHT HORIZONTAL LINES ARE:
MAXIMUM VALUE (TOP),
LONG-TERM AVERAGE (MIDDLE),
MINIMUM VALUE (BOTTOM)

THICK SMOOTH CURVE
IS 9-POINT BINOMIAL
FILTER.

CONFIDENCE INTERVAL
FOR CURRENT YEAR IS
INDICATED BY '+'.
+.

Figure 1: Preliminary data for January 1997 indicate that temperature averaged across the contiguous United States was near the long-term mean ranking as the 51st coolest January since 1895. None of the country averaged much cooler or much warmer than normal for the month.

U.S. NATIONAL PRECIPITATION JANUARY, 1895-1997



National Climatic Data Center, NOAA

STRAIGHT HORIZONTAL LINES ARE:
MAXIMUM VALUE (TOP),
LONG-TERM AVERAGE (MIDDLE),
MINIMUM VALUE (BOTTOM)

THICK SMOOTH CURVE
IS 9-POINT BINOMIAL
FILTER.

CONFIDENCE INTERVAL
FOR CURRENT YEAR IS
INDICATED BY '+'.
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Figure 2: January 1997 was the 27th wettest such month since 1895. Twenty-two percent of the country experienced much wetter than normal conditions while four percent of the country was much drier than normal.

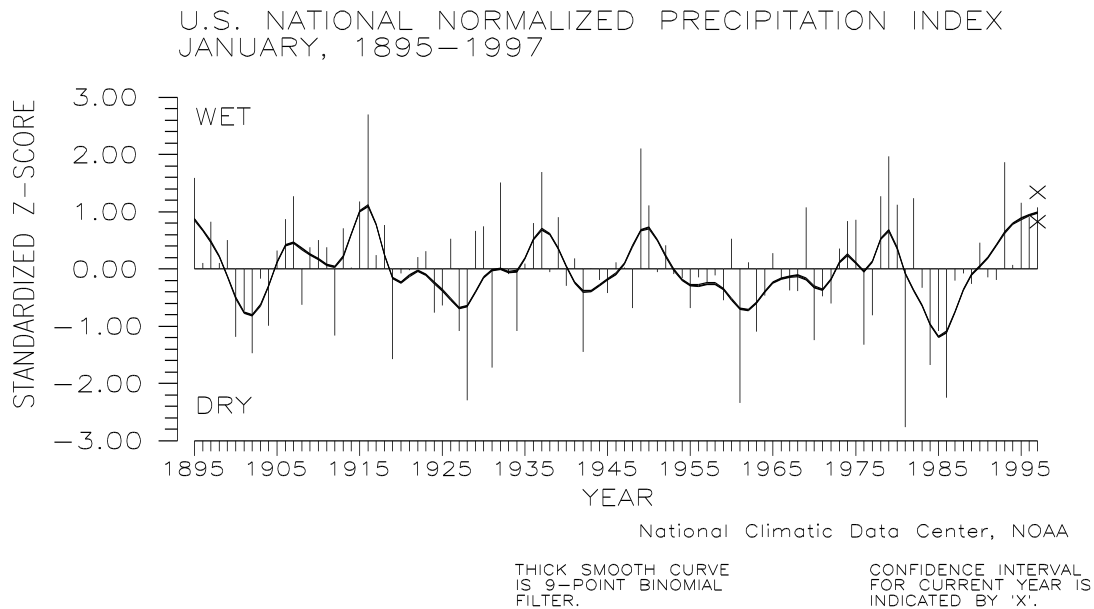


Figure 3: The preliminary national standardized precipitation index ranked January 1997 as the 16th wettest such month on record. This standardized z-score is estimated to be accurate to within 0.256 index units and its confidence interval is shown as an 'X'.

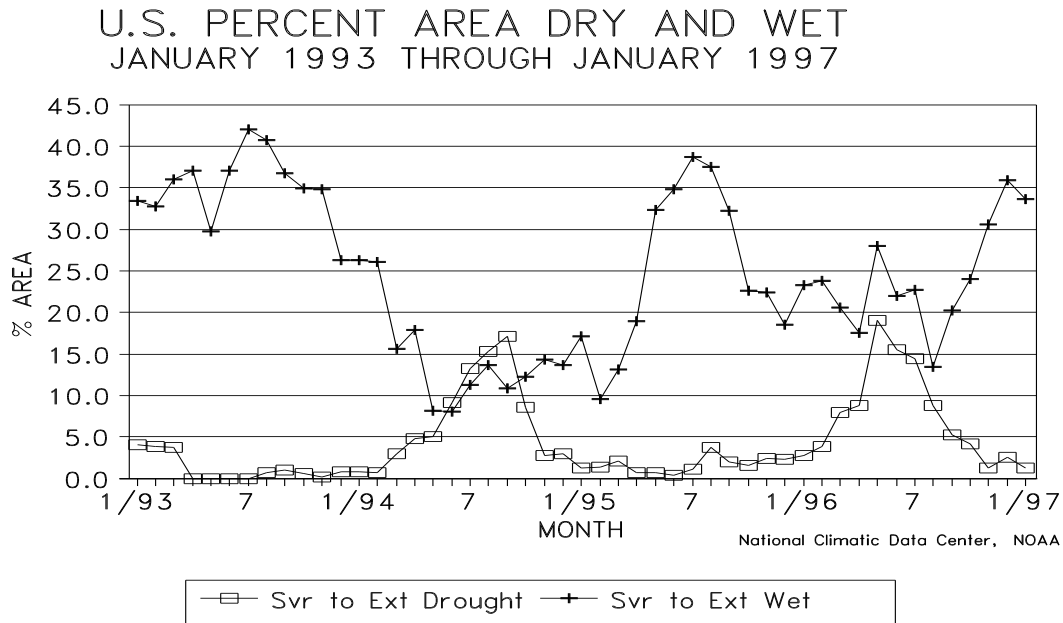
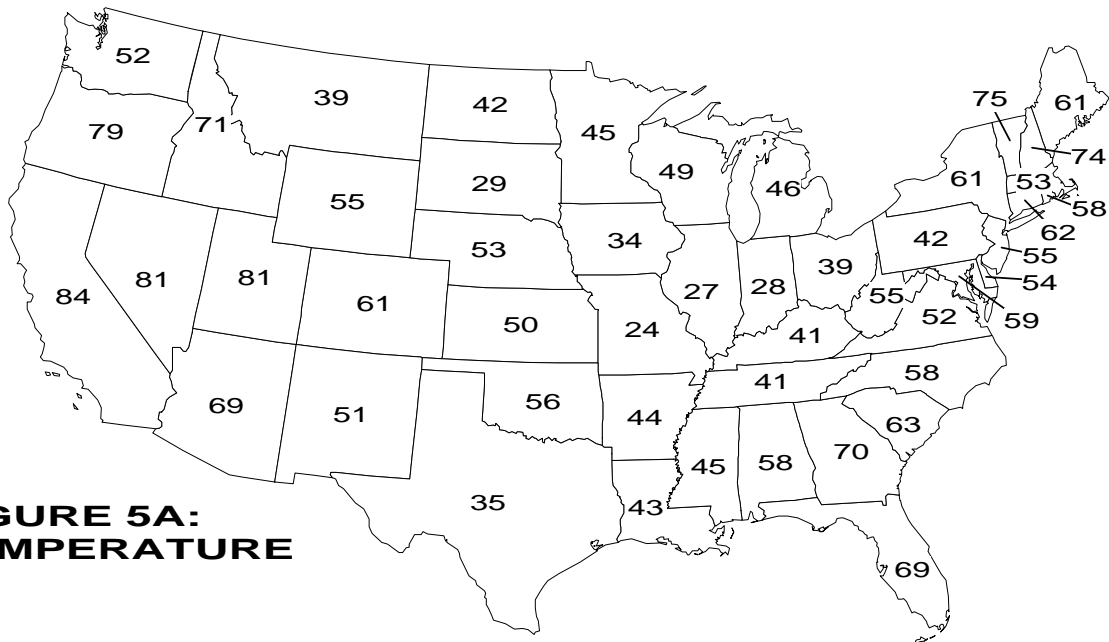
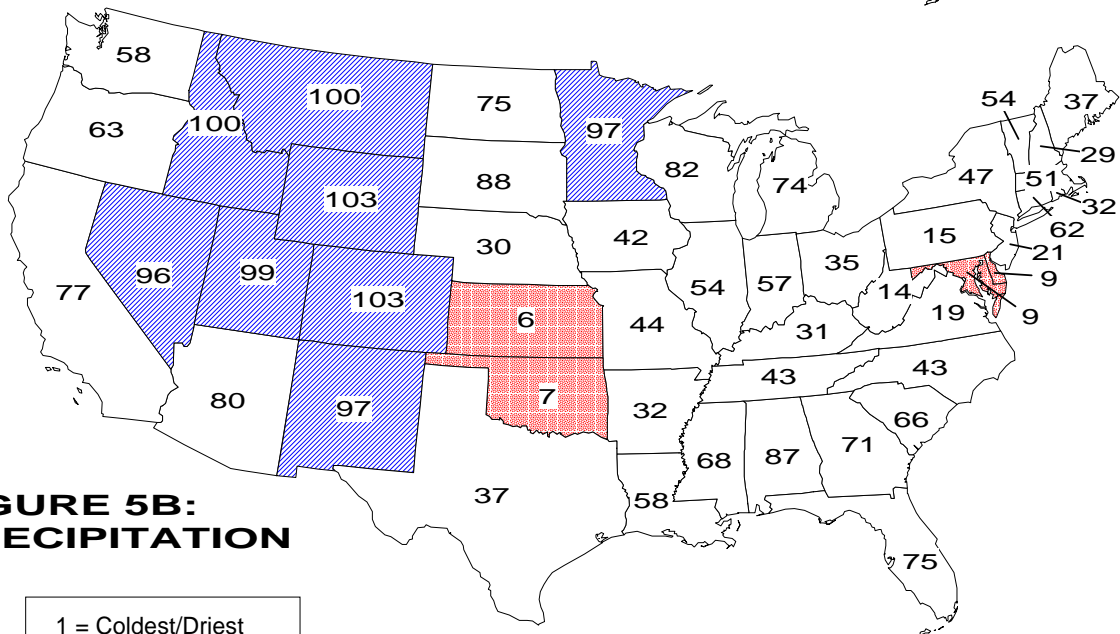


Figure 4: Long-term drought coverage (as measured by the Palmer Drought Index) remained below five percent for the fourth consecutive month. The percent area of the country experiencing severe to extreme wetness dropped slightly during January to about 34%. Core wet areas include most of the Northwest, Pacific Coast, Great Basin, Northern Rockies, Northern Plains, as well as the mid-Atlantic States and New England. Core dry areas included only portions of the desert Southwest.

JANUARY 1997 STATEWIDE RANKS



**FIGURE 5A:
TEMPERATURE**



**FIGURE 5B:
PRECIPITATION**

1 = Coldest/Driest
103 = Warmest/Wettest

National Climatic Data Center, NOAA

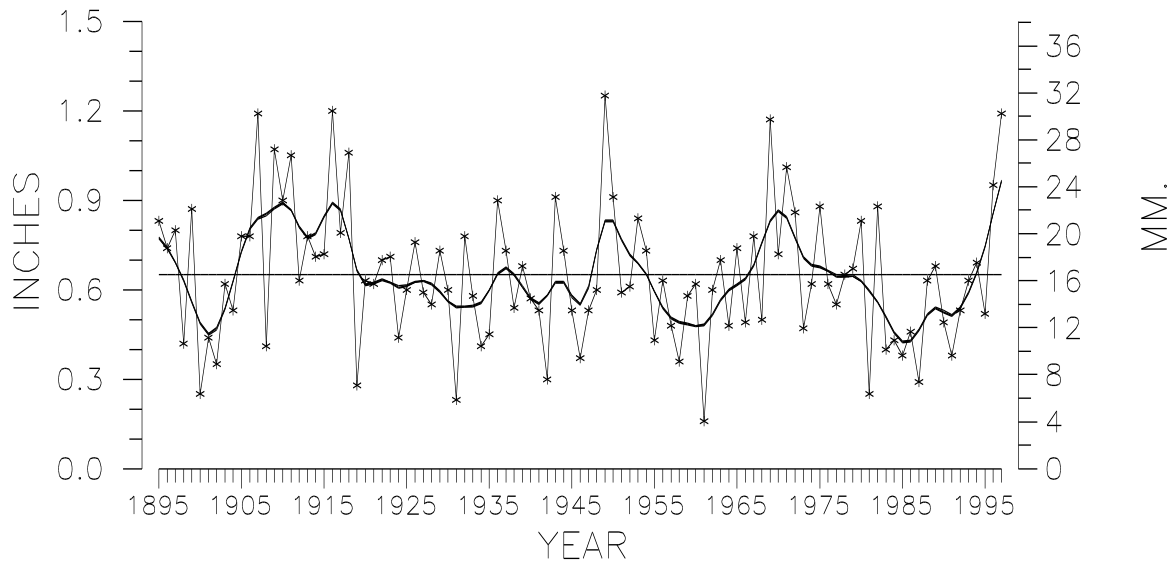
Temperature and Precipitation Ranks for the contiguous United States. Each state is ranked based on its data from 1895-1997. States having a rank of top ten coldest or driest (rank 1-10) or top ten warmest or wettest (rank 94-103) are shaded.

Figure 5A shows, in illustrative map form, the January 1997 temperature rankings for the 48 contiguous states. No state was within the top ten coolest while five ranked within the cool third of the distribution. Comparatively, no state was within the top ten warmest category, while eight states were within the warm third of the distribution.

January 1997 state ranks for precipitation are shown in Figure 5B. Eight states ranked within the top ten wet portion of the historical distribution while an additional nine states ranked within the wet third. Based on preliminary data, it was the wettest January on record for Colorado and Wyoming, fourth wettest January since 1895 for Idaho and Montana and the fifth wettest January on record for Utah. Four states were within the top ten dry portion of the historical distribution including the sixth driest January for Kansas, seventh driest for Oklahoma, and the ninth driest January since 1895 for Delaware and Maryland. Nine other states ranked within the dry third of the historical distribution. ***It should be noted that these January state categorical precipitation ranks are preliminary and should be used with considerable caution due to the high variability of precipitation on a small space and time scale.***

It should be emphasized that all of the temperature and precipitation ranks on these maps and in Table 1 are based on preliminary data. The ranks will change when the final data are processed.

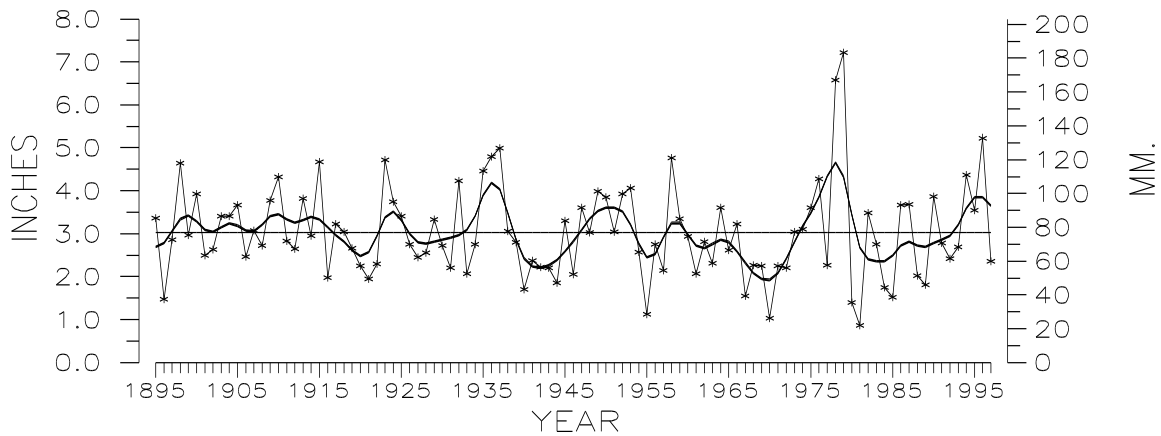
WEST-NORTH CENTRAL REGION PRECIPITATION JANUARY, 1895-1997



National Climatic Data Center, NOAA

Figure 6: January 1997 was the fourth wettest such month in the 103-year period of record for the West-North Central Region.

NORTHEAST REGION PRECIPITATION JANUARY, 1895-1997



National Climatic Data Center, NOAA

THICK SMOOTH CURVE
IS 9-POINT BINOMIAL
FILTER.

Figure 7: After three consecutive years of above normal January precipitation, 1997 had the 30th driest January on record for the Northeast region.

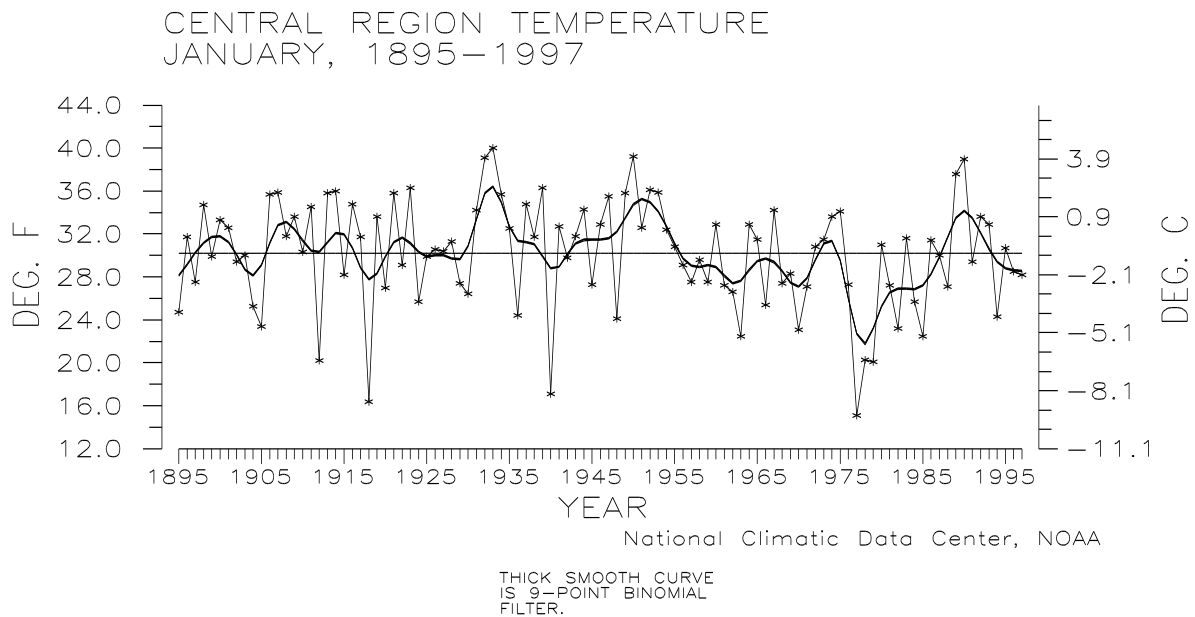


Figure 8: January 1997 was the 34th coolest such month since 1895 for the Central region. This region includes the states of Illinois, Indiana, Kentucky, Missouri, Ohio, Tennessee, and West Virginia.

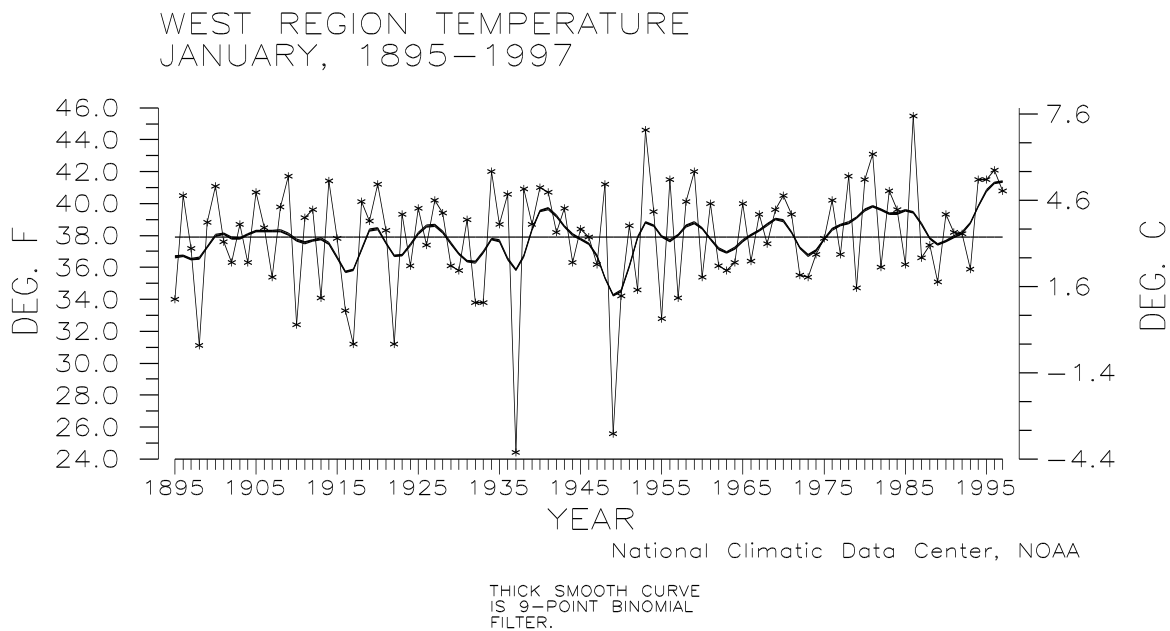


Figure 9: January 1997 was the 20th warmest such month on record for the West region. This region includes both California and Nevada.